



# Hydrodynamic Cavitation

Hydro Dynamics, Inc. (HDI) has developed a patented technology providing breakthrough benefits for industrial processing of fluids. HDI's product, the ShockWave Power™ Reactor (SPR) utilizes "controlled cavitation" to solve critical problems for customers in numerous industries. The SPR represents a paradigm shift for fluid processing and is truly a next generation industrial technology that allows customers to realize significant cost savings through improved efficiencies, lower capital expenditures, decreased maintenance costs and reduced environmental impact. The SPR has been installed all over the world and is used by several Fortune 500 companies. HDI, founded in 1991, is headquartered in Rome, Georgia, USA.

## Biodiesel Plants for Corn Oil from Ethanol

An ethanol plant integrating a biodiesel plant can realize many competitive advantages over a conventional biodiesel plant due to existing infrastructure and eliminating broker and transportation costs. Converting the corn oil to biodiesel can significantly increase its value coproduct revenue.

## The technology inside

Our plants are designed around the patented ShockWave Power Reactor (SPR) by Hydro Dynamics, Inc. for the transesterification reaction. In use for commercial biodiesel production since 2003 with over 500 million gallons of capacity already sold making it a world leader in the industry. The SPR can provide the highest quality fuel and other production benefits such as:

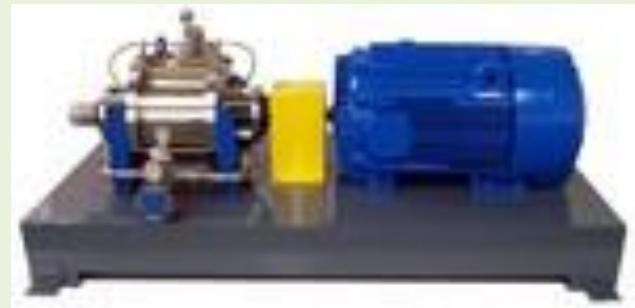
- Low monoglycerides
- High yield
- Flowrate flexibility



## Industrial SPR

Standard Package (customization available of metal, elastomers, etc.)

- 304 Stainless Steel SPR
  - Max temperature: 400°F
  - Max pressure: 300 psig
  - Max flow: 0.1 to 1,500 gpm
- TEFC motor rated at 460 VAC, 1800 or 3600 RPM, 60 Hz
- One AC-Drive
- Piping connections with Viton elastomers
- Double cartridge seal
- Mounted on painted skid
- Basic instrumentation and control panel
- Training and operations manual



## Sanitary SPR

Standard Package (customization available of metal, elastomers, etc.)

- 304 Stainless Steel SPR
  - Max temperature: 300°F
  - Max pressure: 150 psig
  - Max flow: 0.1 to 150 gpm
- TEFC motor rated at 460 VAC, 1800 or 3600 RPM, 60 Hz
- CIP Design
- One AC-Drive
- Piping connections with Viton elastomers
- Double cartridge seal
- Mounted on stainless steel skid
- Basic instrumentation and control panel
- Training and operations manual
- 3A available upon request



For more information please visit

<http://www.hydrodynamics.com>